



AF/ 2642

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
Anthony Dezonno

Serial No.: 09/172,362

For: NEURAL NETWORK FOR CONTROLLING
CALLS IN A TELEPHONE SWITCH

) Attorney Docket:
) 6065-73063
)
) Filed: 10/14/98
)
)
)

RESPONSE

Mail Stop: Appeal Brief
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-0001

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Technology Center 2600

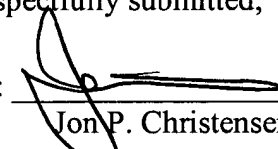
Sir:

In response to the correspondence received from the U.S. Patent and Trademark Office dated June 4, 2004 (copy attached) regarding the omission of the required copies of Appellant's response, enclosed are three copies of Appellant's Answer to the Examiner's Response originally file by the Appellant on March 15, 2004.

No further fee or petition is believed to be necessary in addition to those that are enclosed. Should any fee be needed, please charge our Deposit Account No. 03-2470, and deem this paper to be the required petition.

The Examiner is requested to phone the undersigned should any questions arise that can be dealt with over the phone to expedite this prosecution.

Respectfully submitted,

By: 
Jon P. Christensen, Reg. No. 34,137

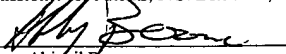
Enclosures:

Copy of Correspondence from USPTO dated June 4, 2004
Three copies of Appellant's Response dated March 15, 2004
Postcard Receipt

WELSH & KATZ, LTD.
120 South Riverside Plaza, 22nd Floor
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Phone (312) 655-1500
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CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify that this Communication, in duplicate, is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop: Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-0001, on June 14, 2004.


Abigail Boone



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/172,362	10/14/1998	ANTHONY J. DEZONNO	96RSS017.075	9182

7590 06/04/2004

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EXAMINER

AGDEPPA, HECTOR A

ART UNIT PAPER NUMBER

2642

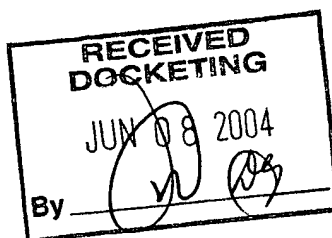
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Please find below and/or attached an Office communication concerning this application or proceeding.



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DETAILED ACTION

1. The appeal brief filed on 3/15/04 is defective because the three copies of the brief required under 37 CFR 1.192(a) have not been submitted.

To avoid dismissal of the appeal, appellant must submit the necessary additional copies of the appeal brief within the longest of any of the following TIME PERIODS: (1) ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing of this communication; (2) within the time period for reply to the action from which appeal has been taken; or, (3) within two months from the date of the notice of appeal under 37 CFR 1.191. Extensions of these time periods may be granted under 37 CFR 1.136.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

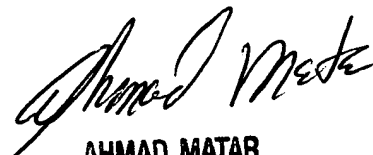
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.A.A.
May 17, 2004


AHMAD MATAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600



73063

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dezonno, Anthony J.

Art Unit: 2642

Serial No.: 09/172,362

Filed: October 10, 1998

For: NEURAL NETWORK FOR CONTROLLING
CALLS IN A TELEPHONE SWITCH

Examiner: Agdeppa, H.

Attorney
Docket No.: 73063

APPELLANT'S ANSWER TO THE EXAMINER'S
RESPONSE UNDER 37 CFR §1.193(b)(1)

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Examiner's Answer of January 13, 2004
and in support of the applicant's Notice of Appeal filed September
5, 2003, the applicant responds as follows:

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smc
7/29/04

Response

In the Examiner's Response, the Examiner assert that "as admitted by Appellant on p. 9 of the specification . . . neural networks are commonly used in telecommunications networks because they afford a platform that can learn, react, and provide more exact call routing/call execution" (Examiner Answer, page 5, line 18 to page 6, line 3). However, a review of page 9 of the specification reveals that this statement by the Examiner is false or, at the very least, misleading.

In the Examiner's Response, the Examiner asserts that "if a system 'learns' a desired set of relationships, then of course, training occurs as well . . . In order for a system to 'learn', that system must monitor, analyze, absorb, an ultimately learn how to properly react to those certain aspects of the system that are to be 'learned.' . . . This is effect learning" (Examiner's Answer, page 6, lines 9-13). The difficulty with this argument, of course, it that it presumes the premise of the argument. That is, the assertion presumes that learning has occurred whereas, there is no teaching or suggestion that this is the case.

The Examiner asserts, that "At the very least, such an operating manner is close to how a neural network operates" (Examiner's Answer, page 6, lines 13-14). However, the Examiner fails to provide any basis for this assertion.

The Examiner asserts next that "See Col. 5, lines 24-29

of Vilolet et al. wherein it is taught that the ACD 'stores in its memory statistical information' . . . over a period of time . . . And from the information gathered over that period of time 'learns' how to react and 'train' itself into reacting appropriately" (Examiner's Answer, page 6, lines 14-17). However, again, the Examiner provides fails to provide any basis for his assertion that "learning" or "training" has occurred. Moreover, the next paragraph suggests that the Examiner is wrong. In this regard, Vilolet et al. asserts that "The tandem computer 34 utilizes the inbound and outdial call information to calculate the number and the rate of inbound calls received compared to the rate outbound calls . . . The call pacing algorithm at the tandem computer uses the compared rate of inbound versus outbound calls to automatically control the rate of outdial calls" (Vilolet, col. 5, lines 30-37). Since the tandem computer uses the "compared rate of inbound versus outbound calls to automatically control the rate of outdial calls", Vilolet doesn't even appear to use the statistical information relied upon by the Examiner.

The Examiner assert next that "If Vilolet et al. merely reacted immediately without taking in information 'over a period of time' perhaps it could be argued that no learning or training is taught, but such is clearly not the case" (Examiner's Response, page 6, lines 18-20). The Examiner in this case seems to be ignoring the fact that statistics are always collected over a period of time. As

such, the Examiner's comment is irrelevant.

The Examiner asserts that "Claim 1 . . . is read upon by Viloet et al. and Applicant's admission of the use of neural networks as well as by Bigus et al. and Donnelly since a neural network is not claimed in any sort of detailed fashion and whose operation can be likened to that of Viloet et al, and since 'resource relationships' and 'distributing resources' too are extremely broad limitations having many possible interpretations" (Examiner's Answer, page 6, line 20 to page 7, line 5). It is noted, in this regard, that the Examiner has not demonstrated any prior use or suggestion of the use of neural networks in the context of the claimed invention and, instead, appears to be rejecting the claim based upon his perception of the claim rather than upon the prior art. This perception is supported by the Examiner's agreement (Examiner's Answer, page 2, lines 12-13) that the issue raised on appeal (Appeal Brief page 4, line 23 to page 5, line 1) is correct.

The Examiner asserts next that "As to Appellant's argument A regarding claim 1 . . . Appellant states 'from the description of the invention and Responses, the resource distributed by the ACD are the agents of the ACD.' [Emphasis added] . . . the features upon which the Appellant relies are not recited in the claims" (Examiner's Answer, page 7, lines 7-11). It is noted in this regard however that, under exemplary embodiments of the invention, agents are in fact resources of the ACD. As such, the

feature are recited in the claims.

The Examiner asserts that "Applicant has argued that the instant invention is distinguished from Viloet et al. because Viloet et al. deals only with calls and not agents . . . However, just as taught by Viloet et al. which uses an ACD to distribute calls to agents, the instant invention as well uses an ACD to distribute calls to agents" (Examiner's Answer, page 7, line 20 to page 8, line 3). It may be noted in this regard, that while the context of the claimed invention is important, the distribution of calls to agents is not the claimed invention.

The Examiner asserts next that "Viloet et al. teaches that 'the ACD 12 continuously sends information relating to changing call processing conditions at the switch 14 . . . This information is needed . . . to effectively predict the optimum outdial call procedure . . . Clearly, call processing conditions can be read as the claimed 'call processor loading' and so in fact Viloet et al. reads on the present invention" (Examiner's Answer, page 8, lines 4-10). However, even if the changing call processing condition did read on "call processor loading", it would still be call processor loading merely used for the control of predictive outdialing.

The Examiner asserts next that "The Bigus and Donnelly references were used merely to show the obviousness of using a neural network in a call distribution system and how closely related, if not exactly, the functionality of the Viloet et al.

system is to those systems that actually use the neural network" (Examiner's Answer, page 8, lines 11-14). It may be noted, in this regard, that even if Viloet et al. were exactly the same as Bigus et al., it would only teach predictive outdialing. Similarly, even if Viloet et al. were exactly the same as Donnelly, the result would only teach distribution of calls, not resources.

The Examiner asserts next that "even a neural network must be programmed to learn, or train . . . Any system or platform such as an ACD must be programmed in some sense as any computer must be programmed" (Examiner's Answer, page 8, lines 20-22). This comment by the Examiner, however, depends upon the level of abstraction one goes to. If one goes back to the beginning of time (i.e., the beginning of neural networks), then inevitably, there would have been programming involved in the creation of the first neural network. However, once created, a neural network need only learn. In this regard, page 9, lines 24-27 of the specification refers to the use of pre-existing neural networks, therefore the programming referred to by the Examiner is not relevant. Further, even the step of adjusting the weighting of a neural network (specification, page 14, lines 3-7) does not rise to the level of programming, as such term is understood in the art.

The Examiner assert next that "while Viloet et al. may be programmed with algorithms, those algorithms program the system of Viloet et al. to 'learn' over a period of time, how to

react/adapt to changing call processing loading/conditions" (Examiner's Answer, page 8, line 22 to page 9, line 3). However, this comment appear to be merely the opinion of the Examiner and should not be relevant to the question of patentability.

The Examiner asserts next that "Appellant's assertion that the outdialing algorithm of Viloet et al. functionality may only be changed by reprogramming is accurate . . . However, this is not issue . . . The issue instead is how the system of Viloet et al. reacts to changing call processing loads which, as discussed above, it clearly does by 'learning' over a period of time . . . Of course, factors that may be considered may have to be reprogrammed in an algorithm, but again such is not the issue at hand here" (Examiner's Answer, page 9, lines 3-8). However, the position taken by the Examiner would appear to be internally inconsistent. For example, each algorithm of Viloet et al. would be assumed to provide a certain functionality. As admitted by the Examiner, to change the functionality of an algorithm, it must be reprogrammed. If the algorithms of Viloet et al. must be reprogrammed to change their functionality, then the position being taken by the Examiner is apparently that the learning of Viloet et al. occurs through reprogramming. This is entirely different than the learning of a neural network.

The Examiner asserts next that "Appellant also, without pointing to any specific limitation in the claims as to what a

neural network is, relying only on the specification of the instant invention, blindly asserts that Viloet et al. does not have a neural network (p. 7 of Appellant's appeal brief), and that the Bigus and Donnelly references either teach the wrong learning and training or teach no training at all . . . As discussed above, this is an erroneous assertion" (Examiner's Answer, page 9, lines 9-13).

It is noted in this regard that page 9 of the specification clearly identifies an exemplary embodiment of a neural network to be used under the invention. Viloet et al. and Donnelly do not use the term "neural network" or provide any description of any functionality that is consistent with the presence of a neural network. The Examiner apparently acknowledges this by failing to identify any structure or methods within Viloet et al. that provides the same or equivalent functionality of a neural network. As discussed above, algorithms that provide a fixed functionality and which must be reprogrammed to alter their functionality are not the same as or equivalent to neural networks. Since Viloet et al. and Donnelly are based upon the use of algorithms, they do not teach or suggest the use of neural networks.

Similarly, Bigus et al. is directed to a neural network that performs predictive outdialing. Nowhere within the combination of Viloet, Bigus et al. and Donnelly is any teaching or suggestion of a neural network that distributed resources as under the claimed invention.

The Examiner asserts next that "Appellant addressed only claim 1 of the instant invention, examiner would like to note that claims 1-9, for example, suggest what Appellant has claimed as a desired resource relationship, i.e., ratio of inbound to outbound calls, a number of answered calls, the number of available agents, etc. . . . While Appellant has suggested that the only resource of consequence in the instant invention are agents (p. 5 of Appellant's appeal brief), these dependent claims indicate such is not the case . . . They instead indicate that these factors and considerations are also resources that the Appellant's invention consider and uses in its system (Examiner's Answer, page 9, line 21 to page 10, line 6). In this regard, the Examiner's comment appears to be irrelevant. An applicant is entitled to claim any other concepts the inventor wants to so long as they are used with the central inventive concept.

In concluding paragraphs, Examiner goes to great effort in an attempt to establish that what is not taught by the cited references would be known to those of skill in the art (Examiner's answer, page 10, line 7 to page 11, line 9). However, relying upon knowledge generally available to those of skill in the art does not excuse the Examiner's failure "to establish, with evidence or reasoning, why one of skill in the art would have been led by the relevant teaching of the applied references to make the proposed combination (Appeal Brief, page 13, lines 10-13).

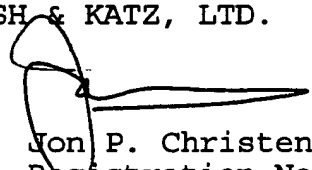
For the foregoing reasons, reversal of the rejections of claims 1-24, as now presented, is believed to be in order and such action is earnestly solicited.

For any of the foregoing reasons, allowance of claims 1-24, as now presented, is believed to be in order. It is respectfully requested that this Board reverse the decision of the Examiner in all respects.

Respectfully submitted,

WELSH & KATZ, LTD.

By



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Registration No. 34,137

March 11, 2004
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U.S. Patent Application

Serial No. 09/172,362

Filed: 10/14/1998

Title: **NEURAL NETWORK FOR CONTROLLING CALLS IN A TELEPHONE SWITCH**

JPC/alb 6065-73063

Applicant: Tony Dezonno

Mailing Date: March 11, 2004

Appellant's Answer to the Examiner's Response (with certificate of mail); Transmittal; Postcard

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